

REMARKS

This application has been carefully reviewed in light of the Office Action dated September 1, 2009. Claims 1 to 31 are pending in the application, of which Claims 1, 11, 16, 25, 30 and 31 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 3, 5 to 12, 14 to 17, 19 to 26 and 28 to 31 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,956,453 (Yaegashi) in view of U.S. Patent No. 5,818,439 (Nagasaka). Claims 4, 13, 18 and 27 were rejected under 35 U.S.C. § 103(a) over Yaegashi and Nagasaka in view of U.S. Patent No. 6,348,929 (Acharya). Reconsideration and withdrawal of these rejections are respectfully requested.

The present invention concerns an image processing apparatus used to select scenes from a series of images such as a video. In one aspect, a user operation for designating a significance level to be subjected to playback of stored scenes is displayed to playback the stored scenes in accordance with a significance level corresponding to the displayed user operation.

In another aspect, if the significance level of the current scene is different from the significance level corresponding to the displayed user operation, the image processing apparatus changes a current scene to be currently played back to a temporally preceding or subsequent scene having the significance level the same as the significance level corresponding to the displayed user operation and being most temporally close to the current scene.

Turning to specific claim language, Claim 1 is directed to an image processing apparatus comprising a storage device that stores scene information including,

at least, data for at least one representative frame extracted from a scene, data for an interval of the scene, and data for a significance level of the scene of each of a plurality of scenes included in a moving picture to be played back, wherein each of the plurality of scenes is mutually disjoint and is managed with no relationship with the other scenes so as to have the single significance level, a single unique identification and the single unique representative frame, a display device that displays a user operation for designating a significance level to be subjected to playback of the scenes stored in the storage device, and extracts, in accordance with the user operation displayed, images of the representative frames of the scenes-from among the plurality of stored scenes having a significance level equal to or higher than the significance level corresponding to the displayed user operation and displays concurrently the extracted images chronologically, a selection device that receives a selection of one of the concurrently-displayed images of the representative frames on the basis of an external designation and a playback control device that controls playback of the scenes corresponding to the images of the representative frames, the playback control device controlling playback so as to play back the scenes corresponding to the selected images of the representative frames when the selection device receives the selection, and change a current scene to be currently played back, to a temporally preceding or subsequent scene having the significance level the same as the significance level corresponding to the user operation displayed by the display device and being most temporally close to the current scene if the significance level of the current scene is different from the externally designated significance level corresponding to the user operation displayed by the display device.

Claim 11 is directed to an image processing apparatus comprising a storage device that stores scene information including, at least, data for at least one representative frame extracted from a scene, and data for a significance level of the scene of each of a plurality of scenes included in a moving picture to be played back, wherein each of the plurality of scenes is mutually disjoint and is managed with no relationship with the other scenes so as to have the single significance level, a single unique identification and the single unique representative frame, a display control device that controls display so as to display a user operation for designating significance level to be subjected to playback of the scenes stored in the storage device, and extract, in accordance with the user operation displayed, images of the representative frames of the scenes-from among the plurality of stored scenes having a significance level greater than or equal to the significance level corresponding to the user displayed and concurrently display the extracted images chronologically and a selection device that receives a selection of one of the concurrently-displayed representative frames on the basis of an external designation, wherein the display control device controls to play back the scenes corresponding to the selected images of the representative frames when the selection device receives the selection, and change a current scene to be currently played back, to a temporally preceding or subsequent scene having the significance level the same as the significance level corresponding to the user operation displayed by the display control device and being most temporally close to the current scene if the significance level of the current scene is different from the significance level corresponding to the user operation displayed by the display control device.

Applicants respectfully submit that the cited references, namely Yaegashi, Nagasaka and Acharya, considered either alone or in combination, fail to disclose or suggest all of the features of the image processing apparatuses of Claims 1 and 11.

In the Office Action, it is conceded that Yaegashi does not disclose or suggest the features of a plurality of scenes, a display device and a playback control device, as recited in the present claims. However, the Office Action alleges that Nagasaka discloses these features. Applicants respectfully disagree with such a characterization of Nagasaka.

Applicants submit that Nagasaka discloses automatically selecting the number of representative images to be displayed on a screen, in accordance with a significance rank so that the selected number of representative images is set to be less than a predetermined number. (See Nagasaka Fig. 13 and related description at column 12, lines 11 to 27) . In addition, Nagasaka discloses dynamically and automatically setting the predetermined number in accordance with not only the significance rank but also a relationship of temporal order of the images. (See Nagasaka Fig.14 and related description at column 12, lines 28 to 55). That is, Nagasaka merely discloses a selection means arranged to automatically set the number of the images to be displayed, so as to fall within a predetermined number. However, Nagasaka is silent regarding a mechanism that allows a user to select, in accordance with a significance level, images to be displayed on a screen.

Furthermore, Nagasaka discloses that a manager may provide and set a ranking of each image or a group of images that have already been processed by the automated ranking system. (See Fig.17 and column 11 lines 18-35). That is, a manager may set the ranking of images only after those images have already been pre-selected by

the automated process. However, Nagasaka, does not disclose or suggest that, when a video image to which the significance level has been already set is played back, the user's designation of the significance level is both allowed and displayed. Nagasaka therefore does not disclose or suggest the display control device and the playback control device, as featured in Claims 1 and 11.

Applicants have reviewed Acharya and submit that nothing in Acharya is seen to correct the deficiencies in Yaegashi and Nagasaka as discussed above.

In light of the deficiencies of Yaegashi, Nagasaka and Acharya as discussed above, Applicants submit that amended independent Claims 1 and 11 are now in condition for allowance and respectfully request same.

Independent Claims 16 and 25 are corresponding method claims of independent Claims 1 and 11, respectively, and have been now amended in the same manner as the amended independent Claims 1 and 11. Independent Claims 30 and 31 are corresponding medium claims of independent Claims 1 and 11, respectively, and have been also amended in the same manner as the amended independent claims 1 and 11. Accordingly, Applicants submit that Claims 16, 25, 30 and 31 are also now in condition for allowance and respectfully request same.

The other pending claims in this application are each dependent from the independent claims discussed above and are therefore believed allowable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each claim on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

CONCLUSION

No claim fees are believed due. However, should it be determined that additional claim fees are required under 37 C.F.R. 1.16 or 1.17, the Director is hereby authorized to charge such fees to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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